

### REMARKS

Claims 1-31 are pending in the present application. Claims 1, 3, 13, 27, and 30 were amended at the request of the examiner to correct informalities. Reconsideration of the claims is respectfully requested.

**I. 35 U.S.C. § 102, Anticipation, Claims 1, 4, 5, 9-10, 13, 18, 21-22, 26-27 and 30-31**

The examiner has rejected claims 1, 4, 5, 9-10, 13, 18, 21-22, 26-27 and 30-31 under 35 U.S.C. § 102 as being anticipated by "Hot!NEWstuff: McAfee: Antivirus software for handhelds" to *Meikle*. This rejection is respectfully traversed.

With regard to claims 1, 18, 30, and 31, the examiner states:

As per claims 1, 18, 30 and 31, *Meikle* teaches a method/data processing system/computer program product for preventing exchange of viruses, comprising:

Maintaining preexisting content for a device in a first location (the handhelds in *Meikle* maintain preexisting content which is to be synchronized with the content on a pc); placing new content associated with the device in a second location (the new content is on the pc in *Meikle*), wherein the new content is an update to the preexisting content (*Meikle* says that the operation is a synchronization. This constitutes an update to preexisting content); combining the preexisting content and the new content in a third location to form merged content and performing a check for viruses on the merged content prior to performing a transfer of the new content (prior to the completion of the synchronization the pc scans content located on the handheld by uploading it, and then the synchronized/merged content is uploaded to the handheld).

(Office Action dated January 29, 2004, pages 3-4).

A prior art reference anticipates the claimed invention under 35 U.S.C. §102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). The *Meikle* reference cited by the Examiner does not anticipate the present invention as recited in claim 1, because *Meikle* fails to teach each and every element of claim 1. Amended independent claim 1, which is representative of independent claims 10, 13, 18, 27, 30, and 31, reads as follows:

1. A method in a data processing system for preventing exchange of viruses, the method comprising:
  - maintaining preexisting content for a device in a first location;
  - placing new content associated with the device in a second location, wherein the new content is an update to the preexisting content;
  - combining the preexisting content and the new content in a third location to form merged content; and
  - performing a check for viruses on the merged content prior to performing a transfer of the new content.

Claim 1 of the present invention recites the features of combining preexisting content and the new content in a third location to form merged content and performing a check for viruses on the merged content prior to performing a transfer of the new content. The step of combining preexisting content and the new content in a third location to form merged content is used to protect clients and servers from exchanging viruses via synchronization. The present invention recognizes that it is possible for a server to receive incremental updates that are infected with viruses that contain two or more parts, wherein the individual parts themselves are harmless. However, when the parts are compiled, the aggregate of the parts results in a virus. The following cited section in the Specification describes the basis for merging the preexisting content and the new content in a third location to detect such aggregate viruses in the manner recited in claim 1:

The present invention provides a method, apparatus, and computer implemented instructions for protecting clients and servers from exchanging viruses. The present invention recognizes that many clients, such as pervasive devices, communicate with servers via synchronization. This type of communication results in incremental updates to data or software being stored on a server for a client. With this situation, it is possible for a virus to contain two or more parts in which the individual parts are harmless. When all of the parts are put together, however, the aggregate results in a virus. With incremental updates, latent viruses, such as these, may be propagated to servers and other clients.

The mechanism of the present invention eliminates these types of threats of introducing and spreading viruses. This mechanism is especially useful for clients that use a server as a primary means of communication. Updates or additions to data or software for a client are not sent to a client or stored on a server with existing data for the client until the union of this data is tested for the presence of a virus.

(*Specification*, page 12, line 17 to page 13, line 11). As is described above, the preexisting content and the new content are combined in a merge area (third location) on the server prior to transferring the updates to the client or storing the updates on the server. The merged content is analyzed to determine whether a virus is present in the combined or merged content. Only if a virus is absent does the merged content get stored or are sent to the client. As a result, infected data, including aggregate viruses, may be detected and disinfected prior to that content reaching its destination.

*Meikle* does not teach the feature of combining the preexisting content and the new content in a third location to form merged content, as recited in claim 1. Instead, *Meikle* teaches using antivirus software on a desktop computer to scan a handheld device to detect known viruses, as described in the following passage:

McAfee has begun offering antivirus software to protect devices from the nascent threat of bugs written for handheld computers. The new software -- McAfee VirusScan Handheld -- keeps known viruses from being transmitted between a desktop computer and handheld devices running the Palm operating system, Symbian's EPOC operating system, and Windows CE or its successor, Pocket PC, said product marketing manager Ryan McGee.

This product begins to address a new, largely unprotected domain where viruses could spread. Though limited by bare-bones operating systems, handhelds are gaining in power and popularity, and sellers are avidly pushing devices that connect wirelessly to the Internet. A virus in Spain called *Timofonica* already attacked some cell phones.

However, the antivirus software doesn't yet run on the handheld itself. Instead, it runs only on a desktop computer and scans the handheld device when files on the PC and handheld are synchronized, McGee said. That means the handheld is still open to virus transmission when it exchanges information directly with the Internet or with another handheld.

F-Secure unveiled software two weeks ago that runs on EPOC, an operating system designed by a cell-phone maker consortium called Symbian for smart cell phones and other handheld devices.

(*Meikle*, page 12-13). As can be seen from the passage above, there is no mention of combining preexisting content and new content to form merged data in a third location, as the Examiner asserts. The *Meikle* reference does not provide any detail as to how the virus scan of the device is performed, other than that the antivirus software "scans the handheld device". The synchronization of the files on the PC and handheld device in

*Meikle* does not include using a merged area on the PC to combine existing content and new content to form a merged content to scan for viruses. *Meikle* merely teaches that when a handheld device makes a synchronization request, the antivirus software present on a PC scans the handheld device. In other words, the *Meikle* merely teaches scanning the device content, but there is no teaching in *Meikle* of combining new content with preexisting content on the PC to form a merged content. In fact, the *Meikle* reference teaches exactly what the present invention is trying to prevent – the incremental update situation where a virus contains two or more parts in which the individual parts are harmless, but the aggregate of the parts results in a virus.

Furthermore, *Meikle* fails to teach performing a check for viruses on the merged content prior to performing a transfer of the new content, as recited in claim 1. As stated before, *Meikle* does not teach combining preexisting content and new content in a third location to form merged content. Since *Meikle* does not teach forming merged content, it must follow that *Meikle* fails to teach performing a check for viruses on the merged content prior to performing a transfer of the new content.

In view of the above, *Meikle* fails to teach each and every element of independent claim 1. Using antivirus software on a desktop computer to scan a handheld device when files on the PC and handheld are synchronized in *Meikle* does not teach the present invention's features of combining preexisting content and the new content in a third location to form merged content and performing a check for viruses on the merged content prior to performing a transfer of the new content. As a result, the *Meikle* reference fails to anticipate independent claims 1, 10, 13, 18, 27, 30, and 31 of the present invention.

Moreover, *Meikle* does not teach, suggest, or give any incentive to make the needed changes to reach the presently claimed invention. *Meikle* actually teaches away from the presently claimed invention because it merely teaches scanning the handheld device for viruses as opposed to first combining the new content with preexisting content on the PC to form a merged content and then performing a check for viruses on the merged content prior to performing a transfer of the new content in order to prevent the incremental update situation where a virus contains two or more parts in which the individual parts are harmless, but the aggregate of the parts results in a virus, as in the

presently claimed invention. Absent the examiner pointing out some teaching or incentive to implement *Meikle* and combining the new content with preexisting content on the PC to form a merged content and then performing a check for viruses on the merged content prior to performing a transfer of the new content, one of ordinary skill in the art would not be led to modify *Meikle* to reach the present invention when the reference is examined as a whole. Absent some teaching, suggestion, or incentive to modify *Meikle* in this manner, the presently claimed invention can be reached only through an improper use of hindsight using the applicants' disclosure as a template to make the necessary changes to reach the claimed invention.

Applicants submit that independent claims 1, 10, 13, 18, 27, 30, and 31 are not taught by *Meikle*. Claims 2-9, 11-12, 14-17, 19-26, and 28-29 are dependent claims depending on independent claims 1, 10, 13, 18, and 27, respectively. Applicants have already demonstrated claims 1, 10, 13, 18, and 27 to be in condition for allowance. Applicants respectfully submit that claims 2-9, 11-12, 14-17, 19-26, and 28-29 are also allowable, at least by virtue of their dependency on allowable claims.

Therefore, the rejection of claims 1, 4, 5, 9-10, 13, 18, 21-22, 26-27 and 30-31 under 35 U.S.C. § 102 has been overcome.

**II. 35 U.S.C. § 103, Obviousness, Claims 2, 3, 8, 11-12, 14-17, 19-20, 25, and 28-29**

The examiner has rejected claims 2, 3, 8, 11-12, 14-17, 19-20, 25, and 28-29 under 35 U.S.C. § 103 as being unpatentable over Hot!NEWstuff: McAfee: Antivirus Software for handhelds to *Meikle*. This rejection is respectfully traversed.

The *Meikle* reference still does not teach or suggest all the claim limitations in dependent claims 2, 3, 8, 11-12, 14-17, 19-20, 25, and 28-29. Claims 2, 3, 8, 11-12, 14-17, 19-20, 25, and 28-29 are dependent claims depending from claims 1, 10, 13, 18, and 27, respectively. Applicants have already demonstrated claims 1, 10, 13, 18, and 27 to be in condition for allowance. Consequently, claims 2, 3, 8, 11-12, 14-17, 19-20, 25, and 28-29 are patentable over the *Meikle* reference because the features relied upon as being taught in the *Meikle* reference are not taught or suggested by that reference, as explained in the response to the rejection of independent claim 1 above. Thus, applicants

respectfully submit that claims 2, 3, 8, 11-12, 14-17, 19-20, 25, and 28-29 are also allowable, at least by virtue of their dependency on allowable claims.

Therefore, the rejection of claims 2, 3, 8, 11-12, 14-17, 19-20, 25, and 28-29 under 35 U.S.C. § 103 has been overcome.

**III. 35 U.S.C. § 103, Obviousness, Claims 6, 7, 23, and 24**

The examiner has rejected claims 6, 7, 23, and 24 under 35 U.S.C. § 103 as being unpatentable over Hot!NEWstuff: McAfee: Antivirus Software for handhelds to *Meikle*, in view of PC WORLD: Do Handhelds Need Virus Protection? to *Silver*. This rejection is respectfully traversed.

The combination of *Meikle* and *Silver* fail to teach or suggest the present invention as recited in claims 6, 7, 23, and 24. Although *Silver* may teach storing an antivirus application on the host PC, (*Silver*, page 1 under "Alternative Approaches"), the *Meikle* reference still does not teach or suggest all the claim limitations in claims 6, 7, 23, and 24, as argued in the response to the rejection of claim 1 above. Claims 6, 7, 23, and 24 are patentable over the cited references because the combination of the *Meikle* reference with *Silver* would not reach the presently claimed invention. The features relied upon as being taught in the *Meikle* reference are not taught or suggested by that reference, as explained above. As a result, a combination of these references would not reach the claimed invention in claims 6, 7, 23, and 24.

Therefore, the rejection of claims 6, 7, 23, and 24 under 35 U.S.C. § 103 has been overcome.

**IV. Conclusion**

It is respectfully urged that the subject application is patentable over the cited references and is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,



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